Study Report 96-02

Profiles of Montgomery G.I. Bill and Army College Fund Soldiers

Darlene Gee and Abraham Nelson U.S. Army Research Institute

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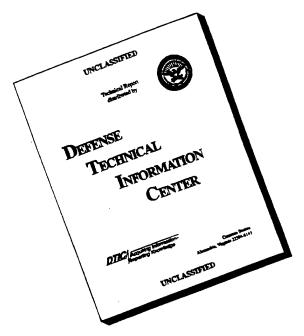
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Profiles of Montgomery G.I. Bill and Army College Fund Soldiers

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The Selection and Assignment Research unit of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) performs research on manpower and personnel issues of particular interest to the U.S. Army. One such issue is the educational enlistment incentive programs, the Army College Fund (ACF), and the Montgomery G.I. Bill (MGIB), which are primary recruiting tools of the Army. This study report investigates differences by demographic and other factors in ACF and MGIB participation and usage behavior. The report also provides descriptions of who uses educational benefits, when and where they are used, and how much is used. This study will assist policy makers in determining the cost-effectiveness of the educational incentive programs and whether their objectives are being met.

ZITA M. SIMUTIS Deputy Director (Science and Technology) EDGAR M. JOHNSON Director

PROFILES OF MONTGOMERY G.I. BILL AND ARMY COLLEGE FUND SOLDIERS

EXECUTIVE SUMMARY

Requirement:

The Army College Fund (ACF) program is an important enlistment incentive for inducing high-quality individuals to enlist in the Army. The Montgomery G.I. Bill (MGIB) program serves to promote the success of the All-Volunteer Force. Both of these programs have been successful in meeting their goals. Continued monitoring of these programs is necessary, however. The U.S. Army and the U.S. Government need to be able to estimate the cost-effectiveness of its educational enlistment incentives programs. Analyzing participation and usage behavior of individuals is an essential aspect of determining these program's cost-effectiveness.

Procedure:

The data used in this analysis are from the U.S. Army Research Institute for the Behavioral and Social Sciences MGIB database, which has been updated through Fiscal Year 1994 (FY94). Cross-tabulations describe the differences in participation and usage rates by entry cohort, gender, race, and educational level for the various Army education programs (MGIB without kicker, 2-year ACF, 3-year ACF, and 4-year ACF). Differences in benefit usage behavior are also described. The study then conducts a tobit regression linking the amount of benefits used to demographic factors, education level at entry, Armed Forces Qualification Test (AFQT) category, and other factors. Findings from the tobit regression show the differences in the amount of benefits used among the various programs. The data used in the tobit regression consists of a 10% sample of FY86 accession cohort veterans. Separate models are estimated for MGIB without kicker, 2-year ACF, and 3- and 4-year ACF programs.

Findings:

- 1. Participation rates have declined for recent cohorts. ACF participation rates are higher for males than females. Blacks have lower ACF participation rates than other racial groups. Whites participate in the ACF at the highest rate of all. Among the educational levels at entry, high school graduates have participated at the highest rates. In general, ACF usage rates for females are lower than those for males, Black usage rates are significantly lower than those of the other racial groups.
- 2. Overall, nearly \$400 million in kicker benefits and approximately \$700 million of basic benefits have been used since the start of the new MGIB program. Most individuals begin using their educational benefits within 2 years after separation from the Army. The vast majority of educational benefits are used for obtaining an undergraduate education. After 8 years since separation, 2-year ACF participants have used the largest percentage of their educational benefits.
- 3. Results of the tobit regression for veterans who enrolled in the MGIB without kicker program imply that usage behavior differs by demographics, education level at entry, and AFQT

category. Fewer differences are found for the ACF programs. However, in all models the analyses suggest that married veterans, Blacks, and veterans in AFQT category IIIA are less likely to use their benefits and use less of their benefits than unmarried veterans, Whites, and veterans in AFQT categories I-II, respectively.

4. Not all selection bias issues are addressed here. in particular, the models are estimated for veterans. Their taste for additional education may differ from those of individuals who chose to reenlist. (All soldiers in the FY86 enlistment cohort did face a reenlistment decision.) This may result in biased estimates of the factor that impact usage behavior. Estimating simultaneously both a reenlistment equation and a usage equation would address this problem. That is beyond the scope of this project, however.

Utilization of Findings:

The results of this study will aid in assessing racial and gender differences in ACF and MGIB participation and usage behavior. These results document demographic differences in participation and usage, and set the stage for inquiry into the reasons for these differences.

PROFILES OF MONTGOMERY G.I. BILL AND ARMY COLLEGE FUND SOLDIERS

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PROFILES OF MONTGOMERY G.I. BILL AND ARMY COLLEGE FUND SOLDIERS

Introduction

In today's environment of declining military budgets and downsizing, the Army's educational benefit programs are constantly scrutinized. The primary objective of these educational benefit programs is to attract high quality individuals. There are recurring Congressional inquiries about the cost-effectiveness of these programs and whether their objectives are being accomplished. There are also inquiries concerning racial and gender participation and usage behavior of soldiers. The continuation of these programs depends upon whether they are cost effective in meeting the Army's high quality recruiting objectives. Although these objectives have been met in the past, continued monitoring of the effectiveness of these programs is necessary.

This paper will describe the Montgomery G.I. Bill (MGIB) and the Army College Fund (ACF) programs, the individuals who sign up for the programs (the "participants") and the individuals who actually use the benefits (the "users"). The paper will also describe differences in usage behavior by gender, race, entering educational level, and marital status. The benefits usage behavior described will include a description of who used them, when and where they are used, and how much is used. Finally, the paper discusses the regression models analyses of the amount of benefits used for a sample of veterans who enlisted in Fiscal Year 1986 (FY86).

Background

Draft Era Educational Benefit Programs

At the end of World War II, Congress decided to assist the returning G.I.s in their adjustment back to civilian life by enacting the Servicemen's Readjustment Act of 1944, commonly known as the G.I. Bill. The key provisions of the G.I. Bill included an educational benefit program and an array of other assistance programs. The educational benefits provided access to college for thousands of individuals who otherwise could not afford to attend college.

The major educational provision under the original G.I. Bill was that any serviceman with at least ninety days service who was discharged under other than dishonorable conditions was eligible for from one to four years of benefits, depending on the length of service over ninety days. These educational benefits included tuition, fees, and books plus a subsistence allowance based on the number of dependents.

During the draft era, Congress continued to enhance the GI Bill. In 1952, Congress passed the Korean War GI Bill (the Veterans Readjustment Assistance Act of 1952), which extended WWII GI Bill education benefits to a new group of veterans.

Korean War veterans were entitled to GI Bill education and training for a period equal to one and one half times their active service, up to a maximum of three years training. According to the Veterans Administration, 2,391,000 veterans received education through the Korean War GI Bill. In 1966, Congress enacted a new GI Bill, the Veterans' Readjustment Act of 1966. The Post-Korean-Vietnam Era GI Bill made 3,800,000 veterans newly eligible for education benefits. In 1974, the draft ended and the U.S. Army became an All-Volunteer Force.

Post Draft Era Educational Benefit Programs Through 1985

In 1976 Congress terminated the G.I. Bill. Individuals enlisting after December 31, 1976, were offered the less generous Post-Vietnam Era Veterans Educational Assistance Program (VEAP). VEAP was designed to do the following: 1) provide educational assistance to individuals who entered the Armed Forces after 31 December 1976 and before 1 July 1985, 2) assist individuals in obtaining an education they might not otherwise afford, and 3) attract quality men and women to serve in the Armed Forces.

In the VEAP, Congress reduced the maximum benefit offered. Enlistees could make monthly contributions of between \$25 and \$100 per month. The maximum personal contribution was limited to \$2,700. These contributions were matched two-for one by the Veterans Administration. Benefits were accrued at a rate equal to one month of benefits for each month of contributions, up to a total of 36 months of benefits. The maximum benefit that could be received under VEAP was \$8,100 for an obligation of three or more years, or \$7,200 for a two-year obligation.

Army recruiting results in the years following the implementation of the All-Volunteer Force were disappointing. The change in educational benefit programs from the G.I. Bill to the less generous VEAP further contributed to the problem. From FY79-FY81, Congress established the FY79 Incentive Test Program and the FY81 DOD Educational Assistance Test Program. These test programs were experimental programs available in certain parts of the country to non-prior service high-quality youths (high school graduates scoring in the top 50% on the Armed Forces Qualification Test (AFQT) enlisting in specified Military Occupational Specialties (MOS). The purpose of these programs was to determine the impact of varying amounts of "kickers" (lump-sum bonuses) on recruiting and retention. These programs were the precursors to the nationwide Army College Fund of FY82-FY85 (or UltraVEAP).

The maximum ACF for FY82-FY84 is \$8,000 for a 2-year obligation, and \$12,000 for an obligation of 3 or more years. The FY85 ACF added the following provisions: \$12,900 for an enlistee with an associate degree, and \$18,300 for an enlistment of 4 years. Hence, the maximum combined benefits (VEAP + ACF) was \$15,200 for a 2-year obligation, and \$20,100 for a 3-year obligation. If a person enlisted in FY85 with an associate degree, he would have a maximum benefit of \$20,100 for a 2-year obligation. If a person enlisted in FY85 for a 4-year term, he would have a maximum benefit of \$26,400.

New Montgomery G.I. Bill Program

In October 1984, the Montgomery G.I. Bill was enacted to help service members achieve their educational goals and to promote the success of the All-Volunteer Force. Any person who entered active duty on or after July 1, 1985, was automatically enrolled in the MGIB program. Each person is briefed on the program within the first two weeks of active duty and may formally decline enrollment if he or she so desires. For each enrollee, \$100 per month is deducted from his pay for the first full 12 months of service. Once enrolled, the person cannot disenroll, and money deducted is non-refundable.

To remain eligible for MGIB benefits, a person must serve a specified period of time, have an honorable discharge, and have a high school diploma or substitute 12 semester hours of college work before the end of the initial obligated period of active duty. Individuals enlisting for at least three years are eligible to receive \$300 per month for up to 36 months for a total of \$10,800, while two-year enlistments qualify a person for \$250 per month for up to 36 months.

Table 1
MGIB Benefits

Obligation	Monthly Amt.	Revised 10/91 ¹	Revised 4/93 ²	Revised 10/94 ³
3 yrs or more	\$300	\$350	\$400	\$404.88
2 yrs	\$250	\$275	\$325	\$328.97

The Fiscal Year 1991 National Defense Authorization Act allowed certain individuals who initially declined enrollment in the MGIB program to subsequently

¹ P.L. 102-25 Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991, Section 337, Apr. 6, 1991, 105 Stat. 90. Section 337 of the Act increased the amount of MGIB payments. For people on active duty with an obligation of 3 or more years, the monthly benefit was increased from \$300 to \$350 per month. For people on active duty with a 2-year obligation, the monthly benefit was increased from \$250 to \$275. Reservists, who have a 6-year obligation, received an increase in monthly benefits from \$140, \$105, and \$75 to \$170, \$128, and \$85, for full-time, three-quarters-time, and half-time study, respectively. The GI Bill increases apply to any person using the benefits between October 1, 1991, and September 30, 1993, whether or not they served in the Persian Gulf.

² 38 U.S.C. 3015(a)(1)(b)(1) Veterans' Benefits. P.L. 102-568 Veterans' Benefits Act of 1992, Section 301,Oct. 29, 1992, 106 Stat. 4325, 4326. Congress increased the amount of the MGIB basic educational assistance. People on active duty with an obligation of 3 or more years now received a monthly benefit of \$400, while people on active duty with a 2-year obligation received a monthly benefit of \$325. Reservists, who have a 6-year obligation, received an increase in monthly benefits to \$190, \$143, and \$95, for full-time, three-quarters-time, and half-time study, respectively.

³ 38 U.S.C. 3015(g) Veterans' Benefits. P.L. 102-25 Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991, Section 337, Apr. 6, 1991, 105 Stat. 90. Congress also provided that the MGIB benefits may be increased at a rate indexed to the Consumer Price Index(CPI). These increases were to begin on October 1, 1993. 38 U.S.C. 3015(g) Veterans' Benefits. P.L. 103-66 Omnibus Budget Reconciliation Act of 1993, Section 12009, Aug. 10, 1993, 107 Stat. 415. However, Congress passed a 1993 Amendment which struck out the increase with respect to the fiscal year beginning on October 1, 1993. Hence, October 1, 1994, reflects the first increase in MGIB benefits based on the CPI.

enroll. Individuals who were on active duty as of September 30, 1990, and who were discharged on or after February 3, 1991, could withdraw their enrollment declination prior to separation, have their pay reduced by \$1,200, and be eligible for MGIB benefits.

The MGIB program contains provisions that allow for part-time school attendance, program benefits while on active duty, and program eligibility for individuals who have certain combinations of service in the active and reserve forces. Other provisions of the MGIB program allow the Services to offer additional money (or "kickers") to individuals who enlist in certain skills for a specified period of time. Through the Army College Fund, the Army has used these "kickers" to strengthen its recruiting efforts.

The Army College Fund is used by the Army to induce high-quality soldiers (high school graduates scoring in the top 50% on the AFQT) to enlist. It is available for 2, 3, or more years of enlistment. Originally, the ACF offers up to \$14,400 in additional benefits to qualified soldiers for a total of up to \$25,200. The ACF is available to non-prior service high-quality youths enlisting in specified MOSs.

Table 2
Maximum Benefits (MGIB + ACF)

Service Obligation	Maximum Award	Revised 4/93
2 years	\$17,000	\$20,000
3 years	\$22,800	\$25,000
4 or more years	\$25,200	\$30,000

On April 1, 1993, the Army increased the maximum combined benefits (MGIB + ACF) to: \$20,000 for a 2-year obligation, \$25,000 for a 3-year obligation, and \$30,000 for an obligation of 4 or more years. Although the MGIB benefits are now indexed to the CPI, the maximum combined benefits remains the same. Hence, if a person is enrolled in the ACF, and his MGIB benefits increase, there would be a corresponding decrease in his maximum ACF benefits.

An enlistee has up to ten years from the date of last discharge to use the benefits. Initially, MGIB/ACF benefits could be used only for attendance at colleges and universities as well as for pursuit of non-college-degree courses at institutions of higher learning. Subsequently, the benefits have been extended to cover apprenticeship training, other on-the-job training, correspondence study, cooperative training, flight training, and tutorial assistance.

The MGIB Database

The data used in this analysis are from the U.S. Army Research Institute for the Behavioral and Social Sciences Montgomery GI Bill data base. This data base was developed by the Manpower and Personnel Research Division to conduct research and to study the impact of educational benefit programs on enlistments and the costs of the programs. The MGIB data base, that is updated quarterly, contains information on soldiers who enlisted in the Army since 1 July 1985. Each record contains demographic, educational benefit participation and usage behavior, and soldier characteristics. This database has been updated through FY94. Since soldiers have up to ten years after the date of separation in which to use their benefits, opportunities still exist for all soldiers who have not used their benefits to use them.

Descriptive Statistics

This section presents, for the various Army education programs (MGIB without kicker, 2-Year ACF, 3-Year ACF, and 4-Year ACF) and entry cohort dates, participation rates of enlistees and usage rates of separatees by gender, race, and education level at entry into the Army. The tabulations provided here, show that there are differences in participation and usage rates. Whether these differences are statistically significant is addressed in the following section. Tables A-1 through A-5 in Appendix A show the actual numbers of participants by various demographic groups and entry cohort. Similarly, Tables B-1 through B-5 in Appendix B show the actual numbers of separatees (participants that separated by end FY94) by various demographic groups and entry cohort.

Participation Rates of Enlistees by Educational Benefit Program

Tables 3 through 5 describe the participation rates of enlistees for each program by entry cohort, gender, race, and education level, respectively. (Tables C-1 and C-2 in Appendix C provide tables for participation rates by marital status and AFQT category.) The denominator for the rates is the total number of individuals that enlisted in the Army. The most interesting general phenomenon to note is that participation rates have declined for recent cohorts. ACF participation has declined since its inception in FY85 through FY89. There was a significant increase in ACF participation from FY89 through FY92. However, the participation rate dropped again in FY93.

There are differences in participation rates by various demographic factors. ACF participation rates are higher for males than females. This is expected since more ACF eligible military occupational specialties (MOS) are open to men than women. This also explains why the MGIB without kicker program participation rates of females are higher than males in all fiscal years except FY85. Excluding FY90, differences in ACF participation rates have increased over time. Blacks have lower ACF participation rates than other racial groups. Whites participate in the ACF at the highest rate of all, but

differences from all other groups is small except for blacks. As with females, there are more opportunities to enroll in the MGIB without kicker program, and a higher rate is observed.

There are also differences in participation rates by education level at entry. Not unexpectedly, as education level increases, ACF participation rates decline. High school graduates have participated at the highest rates. However, there was a significant drop in the participation rate for the FY93 cohort.

Participation Rates of Enlistees

Table 3
MGIB and ACF Participation Rates of Enlistees by Gender

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	Male	29%	48%	64%	80%	83%	71%	66%	60%	65%
	Female	45%	53%	67%	86%	86%	72%	77%	76%	73%
2YR ACF	Male	9%	9%	9%	5%	6%	12%	13%	16%	3%
	Female	7%	9%	7%	0%	1%	10%	8%	9%	2%
3YR ACF	Male	10%	7%	9%	6%	5%	7%	8%	9%	5%
	Female	10%	10%	8%	6%	6%	6%	3%	4%	3%
4YR ACF	Male	24%	10%	3%	5%	3%	7%	13%	14%	5%
	Female	11%	6%	3%	5%	4%	10%	11%	9%	4%
TOTAL ACF	Male	43%	26%	21%	16%	14%	26%	33%	38%	13%
	Female	28%	25%	18%	10%	11%	26%	22%	22%	9%
TOTAL	Male	72%	74%	85%	96%	97%	97%	99%	98%	77%
	Female	73%	78%	86%	96%	97%	98%	99%	97%	82%

Table 4
MGIB and ACF Participation Rates of Enlistees by Race

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	White	28%	45%	61%	7 7 %	80%	68%	64%	58%	63%
	Black	42%	58%	74%	89%	91%	82%	79%	76%	76%
	Hispanic	44%	61%	71%	82%	83%	73%	70%	65%	70%
	Other	43%	57%	67%	80%	83%	71%	69%	65%	69%
2YR ACF	White	10%	10%	11%	6%	7%	13%	13%	16%	3%
	Black	4%	5%	5%	1%	2%	8%	9%	11%	2%
	Hispanic	6%	7%	7%	5%	6%	11%	12%	17%	3%
	Other	8%	7%	8%	6%	5%	12%	12%	15%	3%
3YR ACF	White	11%	9%	10%	7%	6%	8%	8%	9%	5%
	Black	5%	4%	5%	3%	3%	4%	3%	4%	2%
	Hispanic	7%	6%	9%	6%	5%	7%	6%	7%	5%
ļ	Other	8%	8%	11%	6%	6%	8%	6%	7%	5%
4YR ACF	White	24%	11%	3%	5%	4%	9%	14%	15%	5%
	Black	14%	5%	1%	3%	2%	5%	8%	8%	3%
	Hispanic	20%	6%	2%	5%	3%	7%	10%	10%	4%
	Other	21%	9%	9%	5%	4%	7%	12%	12%	4%
TOTAL ACF	White	45%	30%	24%	18%	17%	30%	35%	40%	13%
	Black	24%	14%	11%	8%	7%	16%	20%	22%	8%
	Hispanic	33%	19%	18%	15%	14%	25%	29%	34%	11%
	Other	37%	23%	28%	17%	14%	28%	30%	33%	12%
TOTAL	White	73%	75%	85%	96%	97%	97%	99%	98%	76%
	Black	66%	72%	85%	97%	97%	98%	99%	98%	84%
	Hispanic	77%	80%	89%	97%	97%	98%	99%	99%	81%
	Other	79%	80%	95%	97%	97%	99%	99%	98%	81%

Table 5

MGIB and ACF Participation Rates of Enlistees by Education

	4	FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	<high school<="" td=""><td>42%</td><td>56%</td><td>74%</td><td>80%</td><td>90%</td><td>88%</td><td>74%</td><td>61%</td><td>83%</td></high>	42%	56%	74%	80%	90%	88%	74%	61%	83%
	HS Diploma	31%	49%	65%	81%	83%	71%	67%	61%	65%
	1yr College	33%	45%	56%	79%	85%	77%	72%	73%	72%
	Cert BA/BS	32%	40%	53%	77%	86%	77%	82%	83%	79%
2YR ACF	<high school<="" td=""><td>1%</td><td>1%</td><td>1%</td><td>2%</td><td>1%</td><td>2%</td><td>7%</td><td>10%</td><td>0%</td></high>	1%	1%	1%	2%	1%	2%	7%	10%	0%
	HS Diploma	9%	9%	9%	5%	5%	12%	12%	15%	3%
	1yr College Cert	11%	12%	12%	4%	6%	9%	13%	11%	3%
	BA/BS	9%	8%	8%	4%	4%	7%	7%	7%	1%
3YR ACF	<high school<="" td=""><td>1%</td><td>1%</td><td>1%</td><td>3%</td><td>1%</td><td>2%</td><td>4%</td><td>7%</td><td>2%</td></high>	1%	1%	1%	3%	1%	2%	4%	7%	2%
	HS Diploma	10%	8%	10%	6%	5%	7%	7%	8%	5%
	1yr College Cert	13%	10%	8%	4%	4%	6%	4%	5%	4%
	BA/BS	7%	6%	5%	3%	3%	4%	3%	2%	2%
4YR-ACF	<high school<="" td=""><td>2%</td><td>1%</td><td>0%</td><td>2%</td><td>1%</td><td>2%</td><td>10%</td><td>17%</td><td>2%</td></high>	2%	1%	0%	2%	1%	2%	10%	17%	2%
	HS Diploma	23%	10%	3%	5%	4%	8%	13%	14%	5%
	1yr College Cert	18%	8%	3%	5%	2%	5%	10%	9%	3%
	BA/BS	15%	7%	1%	3%	2%	6%	7%	6%	2%
TOTAL ACF	<high school<="" td=""><td>5%</td><td>2%</td><td>2%</td><td>7%</td><td>3%</td><td>5%</td><td>21%</td><td>34%</td><td>4%</td></high>	5%	2%	2%	7%	3%	5%	21%	34%	4%
	HS Diploma	42%	27%	22%	16%	14%	27%	32%	37%	12%
	1yr College Cert	43%	30%	23%	13%	12%	20%	27%	25%	9%
	BA/BS	31%	22%	14%	10%	8%	17%	16%	14%	6%
TOTAL	< High School	47%	58%	76%	86%	93%	93%	95%	95%	86%
	HS Diploma	73%	76%	86%	97%	97%	98%	99%	98%	78%
	1yr College Cert	75%	76%	79%	93%	97%	97%	99%	98%	81%
	BA/BS	63%	62%	68%	87%	95%	94%	98%	97%	85%

8

Usage Rates

Tables 6 through 8 present for eligible veterans usage rates by the same dimensions used in the participation rate tables. These usage rates are percentages of eligible separatees. (Tables D-1 and D-2 in Appendix D provide tables for usage rates by marital status and AFQT category.) Usage rates after FY91 entry cohorts for 2-year ACF, FY90 for 3-year ACF, and FY89 for 4-year ACF should be regarded with caution because relatively little time has elapsed since separation. Tables E-1 through E-5 in Appendix E provide usage rates as a percentage of education program participants.

These tabulations indicate that for the ACF, there are differences in usage rates by gender, race, and education level. In general, over all programs female rates are lower than male rates; black rates are lower than those of the other racial groups. For example, for the FY88 cohort there is a 29 percentage point difference between male and female 2-year ACF usage. Not only do blacks have the lowest ACF participation rates, they also have the lowest ACF usage rates.

For the MGIB without kicker program, the usage rates for males is lower than that for females with the largest difference being six percentage points. There are also small differences by racial categories. The differences by education level are substantial. For example, for the FY87 cohort there is a 27 percentage point difference in usage rates between the individuals who had some college and those who did not have a high school diploma when they entered the Army.

For the ACF veterans, male usage rates are higher than female rates with the largest difference being 17 percentage points in FY89. The differences by racial category and education level are relatively small. Blacks, however, have a significantly lower usage rate compared to the other racial groups.

<u>Usage Rates of Separatees</u>

Table 6
MGIB and ACF Usage Rates of Separatees
by Gender

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	Male	46%	36%	33%	33%	30%	22%	14%	9%	3%
	Female	50%	42%	38%	36%	30%	24%	15%	11%	6%
2YR ACF	Male	77%	68%	69%	72%	74%	61%	49%	27%	5%
	Female	66%	60%	60%	43%	55%	48%	37%	26%	10%
3YR ACF	Male	70%	63%	59%	64%	68%	58%	42%	13%	5%
	Female	66%	56%	53%	54%	53%	45%	35%	14%	12%
4YR ACF	Male	55%	49%	58%	62%	64%	37%	19%	8%	4%
	Female	57%	51%	57%	60%	49%	34%	22%	10%	7%
TOTAL ACF	Male	63%	59%	63%	66%	69%	55%	40%	20%	5%
	Female	62%	56%	56%	57%	52%	42%	31%	18%	9%
TOTAL	Male	56%	44%	41%	39%	37%	32%	24%	14%	4%
	Female	55%	46%	42%	39%	33%	29%	19%	13%	6%

As of September 30, 1994

Table 7
MGIB and ACF Usage Rates of Separatees by Race

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	White	48%	37%	35%	33%	30%	22%	14%	9%	4%
	Black	43%	33%	30%	32%	30%	21%	14%	9%	5%
	Hispanic	52%	39%	40%	39%	35%	27%	17%	8%	5%
	Other	51%	42%	40%	39%	33%	27%	17%	10%	5%
2YR ACF	White	76%	68%	69%	73%	74%	61%	49%	28%	6%
	Black	64%	58%	56%	55%	65%	55%	40%	21%	7%
	Hispanic	85%	68%	70%	71%	72%	58%	55%	26%	15%
	Other	82%	71%	69%	80%	73%	62%	50%	33%	0%
3YR ACF	White	70%	63%	60%	65%	66%	57%	42%	13%	6%
	Black	63%	52%	47%	53%	62%	51%	34%	9%	8%
	Hispanic	76%	62%	59%	64%	69%	60%	47%	13%	0%
	Other	70%	64%	68%	69%	67%	59%	51%	15%	7%
4YR ACF	White	56%	50%	59%	64%	62%	37%	19%	8%	5%
	Black	47%	43%	48%	52%	51%	31%	17%	9%	7%
	Hispanic	66%	51%	60%	57%	57%	41%	17%	8%	0%
	Other	55%	56%	66%	55%	65%	38%	19%	14%	9%
TOTAL ACF	White	64%	60%	64%	67%	68%	53%	40%	20%	5%
	Black	54%	51%	51%	53%	61%	48%	33%	16%	7%
	Hispanic	72%	61%	64%	65%	68%	54%	44%	21%	4%
	Other	64%	63%	68%	70%	69%	56%	43%	26%	7%
TOTAL	\A#=:+=	E00′	400/	400/	400/	0701	000/	0.40′	4.404	40/
TOTAL	White	58%	46%	43%	40%	37%	32%	24%	14%	4% 50/
	Black	47%	36%	33%	34%	32%	26%	18%	11%	5%
	Hispanic	61%	44%	45%	43%	40%	35%	27%	13%	4%
	Other	57%	48%	47%	45%	39%	36%	27%	16%	5%

As of September 30, 1994

Table 8
MGIB and ACF Usage Rates of Separatees
by Education

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	<high school<="" td=""><td>29%</td><td>19%</td><td>16%</td><td>16%</td><td>14%</td><td>15%</td><td>6%</td><td>8%</td><td>1%</td></high>	29%	19%	16%	16%	14%	15%	6%	8%	1%
	HS Diploma	48%	37%	35%	34%	31%	22%	14%	9%	4%
	1yr College Cert	54%	44%	43%	41%	40%	23%	20%	16%	4%
	BA/BS	50%	38%	39%	34%	27%	22%	13%	8%	5%
2YR ACF	<high school<="" td=""><td>89%</td><td>66%</td><td>57%</td><td>53%</td><td>74%</td><td>45%</td><td>21%</td><td>17%</td><td>0%</td></high>	89%	66%	57%	53%	74%	45%	21%	17%	0%
	HS Diploma	75%	67%	68%	72%	73%	60%	48%	27%	6%
	1yr College Cert	83%	73%	71%	70%	80%	67%	49%	33%	7%
	BA/BS	83%	71%	73%	66%	66%	55%	50%	28%	25%
3YR ACF	<high school<="" td=""><td>36%</td><td>64%</td><td>58%</td><td>29%</td><td>56%</td><td>32%</td><td>12%</td><td>0%</td><td>0%</td></high>	36%	64%	58%	29%	56%	32%	12%	0%	0%
-	HS Diploma	69%	62%	59%	64%	65%	56%	42%	12%	6%
	1yr College Cert	64%	59%	58%	62%	54%	69%	52%	33%	0%
	BA/BS	71%	56%	54%	58%	73%	52%	55%	55%	13%
4YR-ACF	<high school<="" td=""><td>43%</td><td>36%</td><td>38%</td><td>39%</td><td>38%</td><td>24%</td><td>0%</td><td>0%</td><td>0%</td></high>	43%	36%	38%	39%	38%	24%	0%	0%	0%
	HS Diploma	55%	49%	58%	62%	61%	36%	19%	8%	5%
	1yr College Cert	60%	54%	60%	47%	45%	48%	39%	10%	0%
	BA/BS	66%	53%	62%	59%	68%	37%	11%	23%	25%
TOTAL ACF	<high school<="" td=""><td>50%</td><td>54%</td><td>55%</td><td>39%</td><td>59%</td><td>35%</td><td>11%</td><td>6%</td><td>0%</td></high>	50%	54%	55%	39%	59%	35%	11%	6%	0%
	HS Diploma	63%	59%	62%	66%	68%	53%	39%	20%	5%
	1yr College Cert	67%	63%	65%	60%	67%	64%	47%	28%	3%
	BA/BS	72%	61%	66%	62%	69%	49%	41%	29%	19%
TOTAL	<high school<="" td=""><td>31%</td><td>21%</td><td>17%</td><td>17%</td><td>15%</td><td>16%</td><td>7%</td><td>7%</td><td>1%</td></high>	31%	21%	17%	17%	15%	16%	7%	7%	1%
	HS Diploma	56%	45%	42%	39%	37%	32%	24%	13%	4%
	1yr College Cert	62%	52%	50%	45%	44%	34%	31%	21%	4%
	BA/BS	61%	46%	45%	38%	32%	28%	19%	13%	5%

As of September 30, 1994

Benefits Usage Behavior

Figures 1-4 describe the benefits usage behavior. Benefits usage behavior described includes how much is used (Figure 1), when and where they are used (Figures 2 and 3), and who used them by program (Figure 4). These figures describe the behavior of all benefit users of the new MGIB program through 30 September 1994.

The dollar amount of educational benefits used since the inception of the New MGIB through 30 September 1994 by program is depicted in Figure 1. For both the 2-year and 3-year ACF, over 250 million dollars of benefits have been used of which about 100 million is kicker benefits, the Army's portion. The 4-year ACF separatees have used slightly less total benefits. Total basic benefits of individuals enrolled in MGIB but not receiving a kicker is over 300 million dollars. Overall, nearly 400 million dollars in kicker benefits and approximately 700 million dollars of basic benefits have been used since the start of the new MGIB program.

The start of benefit usage for all users since the inception of the New MGIB is shown in Figure 2. Most individuals begin using their educational benefits within two years after separation from the Army. The area under this curve represents all users. It is clear from this figure that the vast majority start using their benefits within four years. Because there are cost implications for the Army associated with when veterans start using their ACF benefits, good estimates of this factor are important.

Usage of benefits by type of educational program is represented in Figure 3. Three types of programs are considered here: undergraduate colleges, vocational/technical schools, and non-degree colleges. The figure reveals that the vast majority of educational benefits are used for obtaining an undergraduate education. Moreover, note that over 66,000 and 78,000 individuals in the ACF and MGIB Alone programs (respectively) use the benefits.

The percentage of educational benefits used in each program by time since separation is depicted in Figure 4. This graph represents the percentage of benefits used by years since separation cohorts. The graph is not a representation of the cumulative usage of education benefits as time since separation increases. This explains why it is possible for 3-year ACF participants who have been separated for eight years to have used less benefits than those who have been separated for seven years.

Figure 4 indicates that as the time since separation increases, individuals use an increasingly greater amount of their benefits. After eight years, individuals with kickers have used over 50 percent of their benefits. However, individuals with only the basic benefit have used less than 40 percent of their benefits. 2-year ACF participants have used the largest percentage of their educational benefits.

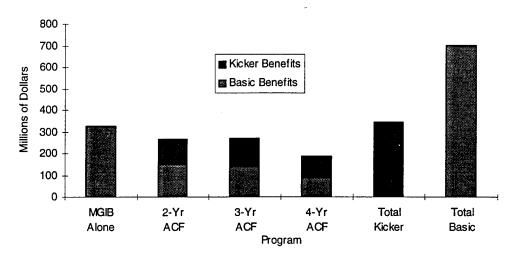


Figure 1. Amount of benefits used by program.

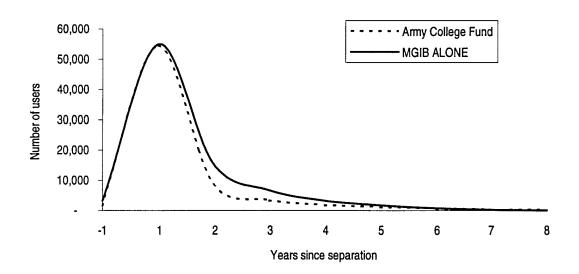


Figure 2. The start of Army College Fund and MGIB Alone benefits usage.

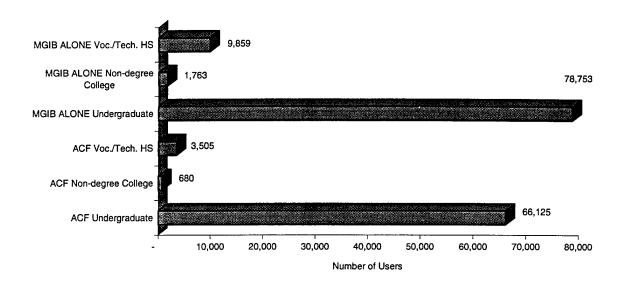


Figure 3. Usage of Army College Fund and the MGIB Alone benefits by type of program.

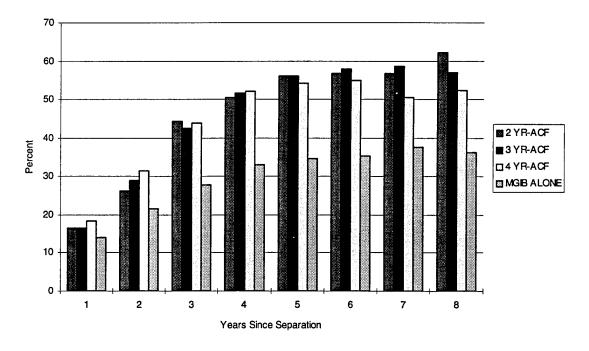


Figure 4. Percentage of educational benefits used by program.

Analyses

The specification of the educational benefit usage models are developed from an economic theory of demand for education and the limitation, that is described below, of the analysis data set. (See Hogan, Smith, and Sylwester, 1991, for a detailed discussion of the theory.) The economic model implies that the demand for education increases as the net financial return for additional education increases. Hence, educational benefit use will increase as the returns from education increase. To capture the differences in the demand for education the following variables are included in the model: AFQT category, education level at entry into the Army, and demographic factors (gender, race, marital status). The model estimated here is similar to the one specified by Hogan, et al.

The AFQT consists of two subtests -- Arithmetic Reasoning and Verbal -- of the Armed Services Vocational Aptitude Battery. AFQT scores are in percentiles. The following percentile score ranges: 93-99, 65-92, 50-64, 31-49, 10-30, and 0-9 are referred to as CAT I, CAT II, CAT IIIA, CAT IV, and CAT V, respectively. Individuals scoring below the 10th percentile are legally prohibited from military service. As noted earlier, individuals must be in categories CAT I, CAT II, or CAT IIIA to participate in the ACF program. The basic MGIB program is open to all AFQT categories eligible for military service. Marital status categories are 'Single' and 'Married'. The 'Married' category includes those individuals who were married at any time in their lives.

The educational levels at entry are aggregates of several subgroups. 'MA_PHD' include individuals who completed a MA/MS, Post MA/MS, Ph.D., or a first professional degree. 'College graduates' include individuals who completed a nursing program or a BA/BS degree. Individuals with 'some college' include those with one semester of college, a one year college certificate, or an Associate Degree. 'High school graduates' include those individuals who have a high school diploma. 'GEDs' include those individuals with a test equivalency diploma or a high school certificate. 'Less than high school' includes individuals who have less than a high school education and those who are currently in high school.

The new MGIB program provides for four levels of benefits: MGIB basic benefits without a kicker, 2-year ACF, 3-year ACF, and 4-year ACF. The ACF programs include the basic MGIB benefits plus different levels of kickers that differ by terms of enlistment. The MGIB without kicker and the 2-year ACF differ significantly from the other two programs. The MGIB program is available to all soldiers who enlist. As noted earlier, the ACF programs are open only to high quality individuals -- high school graduates scoring above the fiftieth percentile on the AFQT. This difference is why a separate MGIB without kicker model is estimated. In addition, because 2-year enlistment terms are atypical, a separate 2-year ACF model is specified. Three models are therefore specified and estimated.

Data

The data consists of a ten percent sample of nonprior service veterans who enlisted into the active Army during FY86 and enrolled in one of the VA's or Army's educational benefit programs. The FY86 cohort was selected because it is the earliest one for which the new MGIB program was available during the entire fiscal year. The source for the data is the ARI MGIB data base, which has been updated through FY94. There are 8,690 observations in the analysis data sample. Separate data samples are used for each of the three models of educational benefit usage. The number of observations in each of these subsets is 5586, 1046, and 2045 for those enrolled in MGIB without kicker, two-year ACF, and three or four year ACF, respectively.

Because the data end 30 September 1994 and consist of veterans who enlisted in FY86, the opportunities still exist for all veterans who have not used their benefits to use them. Hence, the total amount of educational benefits used is not observed for all individuals who enrolled in one of the educational benefit programs. These cases are referred to as censored observations.

Methodology

To accommodate the censored dependent variable, censored regression or tobit models are estimated. The estimated tobit coefficients provide estimates of the impact on amount of educational benefits used for all veterans who participated in an educational program, not just the ones who have used their benefits.

The tobit model for the amount of educational benefit used by veterans is

where Y_j is the dollar amount of educational benefits used, X_j represents demographic and other factors (such as time elapsed since separation) related to benefit usage, ϵ_j is an independent normal distributed error term with zero mean and constant variance σ , and β is the vector of unknown parameters to be estimated. Y is "realized" when its corresponding latent variable Y_j^* is positive. For censored data the conditional mean is $E(Y \mid X) = \beta X * F(\beta X) + \sigma f(\beta X)$, where F and f are respectively the standard cumulative normal distribution and standard normal density functions.

The estimated parameters for the tobit model must be interpreted with care. The β s are not estimates of the factors' impact, rather the slopes (marginal effects) of the ith factor is β_i F(β X). Note that a change in an explanatory variable has an effect on the probability of using the benefits and on the amount of benefits used. The McDonald and Moffitt [1980] decomposition of the slope of the conditional mean implies that the expected actual change is the change in the expected amount of educational benefits used for those who use their benefits multiplied by the probability of using the benefit, plus

the expected amount of benefits used multiplied by the change in the probability of using the benefits. This decomposition is used here. See pages 694 and 695 of Greene, 1993, for a more detailed description of the estimated parameters presented here. The tobit model is estimated with maximum likelihood methods using the LIMDEP econometric package.

Not all selection bias issues are addressed here. In particular, the models are estimated for veterans. Their taste for additional education may differ from those of individuals who chose to reenlist. (All soldiers in the FY86 enlistment cohort did face a reenlistment decision.) This may result in biased estimates of the factors that impact usage behavior. Estimating simultaneously both a reenlistment equation and a usage equation would address this problem.⁴ That is beyond the scope of this project, however.

Results

The estimated effects of various demographic factors, AFQT category, educational levels, and elapsed time since separation upon educational benefit usage are presented in this section. For the MGIB without kicker model, the dependent variable is undiscounted total basic educational benefits used. Undiscounted total kicker dollars used is the dependent variable in the ACF models. Tables 9 through 11 present results for the MGIB without kicker, 2-year ACF, and three- or four- ACF models, respectively. The estimated coefficients, slopes, changes in the amount of benefit use for unit changes in the explanatory variables, changes in the probability of usage for unit changes in explanatory variables and t-ratios are reported. The slopes and rates of change are evaluated at the "means" of the explanatory variables.

Table 9 presents the results of the tobit analysis for veterans who enrolled in MGIB without kicker program. The results suggest that almost all factors considered have statistically significant effects on the amount of benefits used. Terms of enlistment make the biggest difference in the amount of benefit used. Although time since separation is statistically significant, its impact is tiny. The results imply that soldiers that sign up for a 2-year term are 28% more likely to use the benefits, and use \$1,458 more benefits than veterans that signed up for a 4-year term of duty. Moreover, the results suggest that married veterans who were only enrolled in the basic MGIB program are 12% less likely to use the benefits, and are likely to use \$650 less benefits than unmarried veterans. Veterans in AFQT category IIIA are four percentage points less likely to use their benefits and are likely to use approximately \$236 less benefits than AFQT category II. Also note that the estimate of the standard deviation of the amount of benefits used is about \$1,363. The mean of the amount of benefits used is \$4,285.

⁴ Hogan et al. estimated a reenlistment equation jointly with a tobit usage equation, allowing for a non-zero covariance in the errors. They could not reject the hypothesis of zero covariance.

Table 9
Tobit Analysis for MGIB without kicker Separatees

Variable	Coefficient	Slope	T-ratio	дY	дP
Variable	0000.0	0.0p0		$\overline{\partial X_i}$	$\overline{\partial X_i}$
Constant	-11424		-11.995		
GED	843.83	186.866154	1.131	213.9106	0.040752
HS_GRAD**	1768.2	391.56789	2.781	448.238	0.085394
SOME_COL**	2998.6	664.03997	2.778	760.144	0.144816
COL_GRAD**	3046.8	674.71386	3.487	772.3627	0.147144
MA PHD**	-24083	-5333.1804	-0.101	-6105.03	-1.16308
BLACK**	-1244.9	-275.68311	-4.534	-315.582	-0.06012
HISPANIC**	1723.9	381.757655	3.361	437.008	0.083255
OTHER_ET	602.86	133.503347	1.213	152.8248	0.029115
FEMALE**	1363.7	301.991365	4.124	345.6974	0.065859
MARRIED**	-2562.4	-567.44348	-10.928	-649.567	-0.12375
T**	15.124	3.3492098	18.342	3.833928	0.00073
TSQR**	-5.59E - 01	0.12388134	-20.96	0.14181	2.7E-05
AFQT1**	2398.9	531.236405	3.732	608.1202	0.115854
AFQT3A**	-930.13	-205.97729	-2.882	-235.788	-0.04492
AFQT3B**	-1710.8	-378.85666	-6.277	-433.687	-0.08262
TERM2**	5751.2	1273.60324	3.242	1457.927	0.277751
TERM3**	1975.5	437.474475	7.665	500.7885	0.095406
σ	6154.2	1362.84759	49.731		
Log-Likelihood			-17668.43		

^{**} indicates significance at the .01 level.

For the MGIB without kicker program veterans, almost all of the demographic factors have a significant impact on the amount of benefits a soldier will use. This implies that the differences noted in usage tables for the FY86 cohort by race, gender, and education level are statistically significant.

Table 10 presents results of the tobit analysis of the 2-year ACF model. The results imply that married veterans are 21% less likely to use the benefits, and are likely to use \$1,063 less benefits than unmarried veterans. Black veterans are 13% less likely to use the benefits, and use \$634 less benefits than white veterans. Again although statistically significant, the time since separation variable has only a marginal effect on the amount of benefit used. Surprisingly, there are no statistically significant differences in benefit usage between non-high school graduates and veterans at other educational levels, except for individuals at the MA_PHD level who make up less than .1 percent of the 2 Year ACF separatees. Veterans in AFQT category IIIA are seven percentage points less likely to use the benefits and are likely to use \$366 less benefits than veterans in AFQT category II. The estimate of the standard deviation of the amount of benefits used

^{*} indicates significance at the .05 level.

for 2-year ACF veteran benefit users is approximately \$2,637. The mean of the amount of benefits used is \$4,778.

Table 10 Tobit Analysis for 2-Year ACF Separatees

		······			
Variable	Coefficient	Slope	T-ratio	$\overline{\partial Y}$	∂P
				дXi	∂X_i
Constant	-9431.80		-3.61		
GED	-5261.80	-3453.8981	-1.889	-2421.69	-0.48178
HS_GRAD	-1114.90	-731.83151	-0.552	-513.12	-0.10208
SOME_COL	-202.37	-132.83769	-0.092	-93.1385	-0.01853
COL_GRAD	-1253.30	-822.67865	-0.578	-576.817	-0.11475
MA_PHD*	10019.00	6576.57179	2.214	4611.134	0.917349
BLACK**	-1378.60	-904.92683	-2.943	-634.485	-0.12623
HISPANIC	480.70	315.536287	0.482	221.2368	0.044013
OTHER_ET*	1362.60	894.424266	2.058	627.1215	0.124761
FEMALE	-527.73	-346.40725	-1.211	-242.882	-0.04832
MARRIED**	-2310.00	-1516.3071	-6.16	-1063.15	-0.21151
T**	19.47	12.7816155	10.855	8.961772	0.001783
TSQR**	-0.01	-0.0037647	-11.599	-0.00264	-5.3E-07
AFQT1	563.97	370.195548	1.142	259.5609	0.051638
AFQT3A**	-795.11	-521.91816	-2.662	-365.941	-0.0728
σ	4017.80	2637.3241	33.429		
Log-Likelihood			-6632.237		

^{**} indicates significance at the .01 level.

These results indicate that most of the differences observed in the usage rate tables for the FY86 entry cohort are not statistically significant differences. For example, although 2-year ACF males are more likely to use the benefits than females, the results of the tobit analysis show that this difference is not statistically significant. Similarly, none of the education levels are statistically significant. The difference in usage rates between Blacks and Whites is statistically significant; Blacks use their ACF benefits at a lower rate than Whites.

Table 11 provides the results of the tobit analysis for 3 and 4-year ACF separatees. As in the other two models, marital status has a large significant impact on usage. These results suggest that 3 and 4 Year ACF married veterans are 25% less likely to use the benefits, and are likely to use \$1,459 less benefits than unmarried veterans. Black veterans are 10% less likely to use the benefits, and use \$611 less benefits than white veterans. As in the 2-year ACF model, these results also imply that educational level does not affect the level of benefits used. This differs from what Hogan et al. found. Veterans in AFOT category IIIA are eleven percentage points less likely to use the benefits and are likely to use \$621 less benefits than veterans in AFQT category II. The estimate of the standard deviation of the amount of benefits used for 3-year and 4-year

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^{*} indicates significance at the .05 level.

ACF veteran benefit users is approximately \$3,157. The mean of the amount of benefits used is \$7,204.

Table 11
Tobit Analysis for 3-and 4-Year ACF Separatees

Variable	Coefficient	Slope	T-ratio	9 <i>Y</i>	дP
Variable	Cocmocn	Оюро	1 14110	$\frac{\partial Y}{\partial X_i}$	$\frac{\partial X_i}{\partial X}$
O	0004.1		4 E 4 C	UAI	UAI
Constant	-9864.1		-4.546		
GED	-2871.1	-1371.9264	-0.995	-1009.02	-0.17312
HS_GRAD	2170	1036.9128	1.127	762.6245	0.130849
SOME_COL	558.21	266.735066	0.234	196.1772	0.03366
COL_GRAD	2881.1	1376.70482	1.365	1012.533	0.173728
BLACK**	-1739.8	-831.34603	-3.084	-611.435	-0.10491
HISPANIC	2007	959.02488	1.817	705.3398	0.12102
OTHER_ET*	1146.3	547.747992	1.153	402.8555	0.069121
FEMALE	1164.1	556.253544	2.048	409.1111	0.070194
MARRIED**	-4151.7	-1983.8483	-10.909	-1459.07	-0.25034
T**	21.641	10.3409354	16.306	7.60551	0.001305
TSQR**	-8.15E-03	-0.003894	-18.597	-0.00286	-4.9E-07
AFQT1	1222.1	583.968264	1.803	429.4946	0.073692
AFQT3A**	-1766.7	-844.19993	-4.708	-620.889	-0.10653
ACF_3YR**	1950.5	932.02692	5.359	685.4834	0.117613
σ	6605.8	3156.51	41.606		
Log-Likelihood		-	-11079.14		

^{**} indicates significance at the .01 level.

Although the usage rate tables earlier suggested that there were major differences in usage rates for the FY86 cohort by race and gender, the results of the tobit analyses suggest that many of these differences are not statistically significant. For example, although 3 and 4-year ACF males are generally more likely to use the benefits than females, the results of the tobit analysis show that this difference is not statistically significant. Similarly, none of the education levels are statistically significant. However, among the racial groups, both Blacks and Other Ethnic groups when compared to Whites have statistically significant differences. Blacks are less likely to use the benefits than Whites; Other Ethnic groups are more likely to use the benefits than Whites. Among the AFQT categories, AFQT IIIAs are less likely to use the benefits than AFQT IIs. There is no statistically significant difference in benefits usage between AFQT Is and AFQT IIs.

Summary

The Army College Fund program has been an important recruiting tool for inducing high-quality individuals to enlist in the Army. The ACF supplements the basic educational benefits offered under the Montgomery GI Bill that are available to all individuals. This paper examines participation and usage by demographics, entry educational level, AFQT category, and entry cohort. This paper also provides aggregate

^{*} indicates significance at the .05 level.

statistics on the amount of benefits used, the start of benefits usage, type of institutions at which benefits are used, and the percentage of benefits used. Finally, econometric analyses reveal the relative importance of demographics, entry educational level, and AFQT category on amount of benefits used by eligible veterans who enlisted in FY86.

Descriptive tabulations reveal differences in participation behavior by gender, race, education, and AFQT categories. For example, although female ACF participation rates are lower than males, their participation rates in the MGIB without kicker program are higher. A similar phenomenon is observed for Blacks. Their ACF participation rates are lower than Whites, but they participate at higher rates in the MGIB without kicker program. Participation rate differences were also observed among educational levels. Declining ACF participation rates were observed between FY85 through FY89, followed by increases through FY92, and a drop in FY93.

In addition, the descriptive tabulations reveal differences in usage between the genders, among races and educational levels. For gender and Blacks and Whites, similar patterns to that of participants is observed. Males and Whites have higher rates for the ACF; and females and Blacks have higher rates for the MGIB without kicker. The differences by racial category are small. However, the differences by education level are substantial. Usage rates are higher for individuals who had a high school diploma or some college than for individuals who did not have a high school diploma when they entered the Army.

Data for FY86 accession cohort veterans are used to estimate models linking educational benefit use to demographics, entry level education, and AFQT. Separate models are estimated for MGIB without kicker, 2-year ACF, and 3 and 4-year ACF programs. In the MGIB without kicker model, almost all factors are statistically significant. Fewer factors are statistically significant in the ACF models. Marital status is significant in all models, however. Married veterans are less likely to use their benefits and will use less of their benefits than unmarried veterans. The results of all three models also suggest that Black veterans are less likely to use their benefits than White veterans, and will use a smaller amount of them. Educational differences are not statistically significant, while usage is significantly greater for higher aptitude veterans. Veterans in AFQT category IIIA are less likely to use their benefits, and will use a smaller amount of them than veterans in AFQT categories I-II.

Graphs of aggregate usage behavior for the ACF and the Montgomery GI Bill programs show that nearly 400 million dollars in kicker benefits and approximately 700 million dollars in basic benefits have been used by over 66,000 and 78,000 individuals in the ACF and MGIB without kicker programs, respectively. Moreover, these graphs indicate that most individuals begin using their benefits within two years after separation; and that the vast majority use them to obtain undergraduate education. These graphs also show that the largest percentage of educational benefits that has been used is a little over 60 percent by 2-year ACF veterans who separated approximately eight years prior to 30 September 1994.

References

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- Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991, Pub. L. No. 102-25, sec. 337, 105 Stat. (1991).
- Veterans' Benefits Act of 1992, Pub. L. No. 102-568, sec. 301 106 Stat. (1992), 38 U.S.C. sec. 3015(a)(1)(b)(1) (1994).
- Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, sec. 12009, 107, Stat. (1993), 38 U.S.C. sec. 3015(g) (1994).

Appendix A: Numbers of Participants

Table A-1

Montgomery GI Bill and Army College Fund Program Participants by Gender

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	Male Female	8,292 1,895	51,891 7,879	65,629 10,722	71,138 11,918	75,475 13,026	48,984 8,570	38,888 7,699	35,249 8,414	33,948 7,338	29,626 7,475
2YR ACF	Male Female	2,656	9,281 1,312	9,550 1,182	4,761 22	5,462 160	7,927 1,146	7,617	9,283 985	1,481 213	560
3YR ACF	Male Female	2,704	7,823 1,434	9,533 1,343	5,680 787	4,537 914	5,088 729	4,523 275	5,116 408	2,705 298	אט
4YR ACF	Male Female	6,736	10,898 959	2,620	4,062 626	3,063	4,894 1,181	7,645	8,258 1,013	2,424 442	9 +
Ī	Total	23,458	1	91,477 100,999	98,994	103,244	78,519	68,535	68,726	48,849	37,826

* Through fiscal year 1994.

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Montgomery GI Bill and Army College Fund Program Participants by Race

Table A-2

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	White	6,783	38,557	49,718	53,820	56,004	36,131	31,521	28,629	27,343	23,652
	Black	2,540	15,832	20,298	22,761	24,900	16,244	10,815	10,672	9,537	9,293
	Hispanic	347	2,395	3,042	2,799	3,234	2,375	1,898	2,304	2,412	2,602
	Other	544	3,183	3,667	3,994	4,690	2,983	2,529	2,092	1,996	1,597
AVC	White	2 563	8 728	8 771	4.014	4 556	6 702	6415	7 739	1 246	451
	Black	241	1.238	1.256	376	603	1.510	1.214	1.471	260	178
 	Hispanic	46	266	301	157	220	374	333	602	104	28
	Other	104	378	429	310	259	519	442	473	84	24
3YR ACF	White	2,642	7,439	8,530	5,118	4,121	4,492	3,946	4,549	2,384	9
	Black	324	1,159	1,476	873	845	789	473	498	312	
	Hispanic	55	251	369	195	198	217	157	249	156	0
	Other	102	429	277	308	336	331	230	228	151	0
4YR ACF	White	5,946	9,859	2,449	3,635	2,898	4,604	6,992	7,389	2,216	CJ
	Black	855	1361	384	682	449	933	1,066	1,148	400	7
	Hispanic	157	244	85	154	129	241	280	363	123	2
	Other	266	490	132	235	207	312	444	376	127	-
	Total										
		23,515	91,809	91,809 101,484	99,431	99,431 103,649	78,757	68,755	68,775	48,851	37,869

* Through fiscal year 1994.

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Montgomery GI Bill and Army College Fund Program Participants by Marital Status

Table A-3

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	Single	6,399	34,377	42,925	48,324	52,131	34,497	28,053	27,867	29,715	28,789
	Married	3,462	23,266	30,674	31,532	33,413	21,557	17,089	14,519	10,857	7,695
	No longer married	267	1,716	2,166	2,134	1,957	1,200	1,137	890	708	641
2YR ACF	Single	2,424	8,227	8,418	4,005	4,778	7,263	6,711	8,295	1,468	631
	Married	487	2,152	2,115	687	783	1,658	1,566	1,855	216	74
	No longer married	28	182	150	31	33	101	87	8	10	9
3YR ACF	Single	2,201	6,276	7,447	4,751	4,265	4,365	3,765	4,527	2,464	9
	Married	855	2,716	3,108	1,600	1,089	1,369	977	929	515	-
	No longer married	52	219	235	84	55	63	42	47	24	0
4YR ACF	Single	4,286	6,848	1,841	3,137	2,574	4,055	6,310	7,116	2,220	5
	Married	2,691	4,563	1,107	1,390	1,010	1,919	2,302	2,008	605	7
	No longer married	184	304	73	88	61	92	120	26	41	0
!	Total	23,336		90,846 100,259	97,763	97,763 102,149	78,139	68,159	68,231	48,843	37,850

* Through fiscal year 1994.

Table A-4
Montgomery GI Bill and Army College Fund Program Participants by Education

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	<high school<="" th=""><th>394</th><th>2,522</th><th>2,970</th><th>1,427</th><th>2,566</th><th>1,219</th><th>438</th><th>105</th><th>378</th><th>461</th></high>	394	2,522	2,970	1,427	2,566	1,219	438	105	378	461
	HS Diploma	9,366	54,551	70,306	78,510	83,184	54,079	43,759	40,941	38,097	33,438
	1yr College Cert	105	832	881	838	636	488	492	268	986	1,315
	BA/BS	300	1,772	2,134	2,349	2,198	1,807	1,917	1,983	1,742	1,780
	MA_PHD	7	28	09	64	69	53	64	74	61	84
	(C) 45:11 (C) 45:11	σ	00	ć, r	98	00	5	40	17	C	4
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	no Dipiorna	2,010	6,80	10,172	4,000	0,400	0,000	o, -000	200,01	1,021	6/0
	1yr College Cert	36	229	195	46	45	29	83	82	33	1
	BA/BS	82	363	320	120	66	175	155	164	99	6
	MA_PHD	T	8	က	က	0	0	7	4	0	0
3YR ACF	<high school<="" td=""><td>14</td><td>58</td><td>4</td><td>47</td><td>35</td><td>22</td><td>23</td><td>12</td><td>7</td><td>0</td></high>	14	58	4	47	35	22	23	12	7	0
	HS Diploma	2,992	8,773	10,500	6,283	5,343	5,679	4,689	5,431	2,895	9
	1yr College Cert	43	177	128	45	30	36	27	38	20	-
	BA/BS	63	271	200	95	71	83	61	38	49	0
	MA_PHD	21	S	9	4	ဇ	C)	Ø	Ø	0	0
L C	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	ç	Ċ	o	G H	Ţ	Ċ	C	C	a	c
4YR-AOF	STIGIL SCHOOL	S	20	0	C)	2	S	00	3	0	>
	HS Diploma	6,979	11,304	2,930	4,528	3,610	5,898	8,489	9,028	2,762	7
	1yr College Cert	22	154	44	51	13	32	65	72	40	0
	BA/BS	143	326	9	83	40	130	157	138	54	0
	MA_PHD	0	7	0	က	~	0	2	-	_	0
	÷ F	00 100		01 406 100 003	00 150	00 132 103 442	78 6/6	68 6/3	68 733	708 87	37 802
	lotai	23,430		100,993	33,132	103,442	70,040	00,043	00,700	40,054	300,10

*Through fiscal year 1994.

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Table A-5 Montgomery GI Bill and Army College Fund Program Participants by AFQT Category

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	CAT IV	145	3,474	3,803	4,311	7,014	1,446	629	272	1,350	1,018
	CAT III B	5,285	28,265	29,584	29,338	31,037	24,322	16,664	14,616	15,975	13,098
	CAT III A	1,988	12,326	19,134	21,375	22,488	14,483	12,669	12,615	10,382	6,907
	CAT II	2,426	14,153	21,457	24,515	24,249	15,053	14,601	14,196	11,947	11,481
	CATI	283	1,484	2,483	2,813	2,597	1,663	1,811	1,777	1,519	1,579
OVB ACE	A III A	1 028	3 791	3 792	1 662	1 954	3 821	3 538	4 481	704	350
2	CATII	1,641	6,014	6,094	2,757	3,233	4,671	4,380	5,242	912	331
	CATI	180	767	834	403	409	222	459	541	72	30
C & C > C	= + (1 1 20	0 007	900	0	4.00	000	7	000	7	c
STA ACF		6/-'-	0,637	4,020	2,210	2,132	2,999	1,304	6,350	717,1	Ŋ
	CATII	1,675	5,241	6,079	3,526	2,958	3,086	2,567	2,884	1,586	4
	CATI	159	655	296	422	354	394	261	305	203	0
4YR ACF	CAT III A	2,848	4,587	1,113	1,651	1,182	2,313	3,373	3,801	1,109	က
	CATII	3,704	6,472	1,687	2,619	2,108	3,257	4,772	4,862	1,524	2
	CATI	409	823	219	371	340	477	610	604	227	-
	Total	22,950	91,349	91,349 101,101	98,279	98,279 102,075	77,878	68,298	68,524	48,722	37,806

*Through fiscal year 1994.

Appendix B: Numbers of Separatees

Table B-1

Montgomery GI Bill and Army College Fund Separatees by Gender

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	Male Female	8,207	51,082 7,739	60,924 10,109	59,595 9,982	58,066 10,006	33,584 6,001	18,694 4,232	10,756 3,388	7,846 2,230	4,539 1,515
2YR ACF	Male Female	2,619	9,254 1,307	9,510 1,172	4,664	5,131	6,909 933	6,259 608	4,857 582	274 51	47
3YR ACF	Male Female	2,682	7,740	9,318 1,309	5,272 727	4,053 797	4,120 567	3,318 215	1,295 168	556 91	0 +
4YR ACF	Male Female	6,670	10,637 939	2,355 387	3,550 551	2,484	3,390 908	2,861	2,188	559 154	
	Total	23,213	90,113	90,113 95,084	84,362	84,362 81,178	56,412	36,762		23,640 11,761	6,118

*Through fiscal year 1994.

Table B-2 Montgomery GI Bill and Army College Fund Separatees by Race

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	White	6,720	37,998	46,855	46,918	45,321	25,821	16,265	9,950	7,248	4,319
	Black	2,508	15,534	18,380	17,460	17,253	10,360	4,862	3,057	1,994	1,222
	Hispanic	341	2,355	2,787	2,293	2,408	1,599	846	607	486	332
	Other	541	3,130	3,379	3,218	3,413	1,980	1,126	562	350	188
2YR ACF	White	2.528	8.707	8,732	3,934	4.314	5,973	5,394	4,279	260	44
	Black	238	1,231	1,247	365	522	1,169	878	661	43	Ξ
	Hispanic	46	264	301	155	203	305	257	290	13	5
	Other	103	376	426	305	249	427	351	218	o	-
3VB ACE	White	9 619	7.370	8.349	4 798	3 741	3 713	2 963	1 225	538	•
	Black	319	1.137	1.429	765	698	552	300	144	63	. 0
	Hispanic	54	249	358	178	170	177	110	48	18	0
	Other	102	420	267	285	290	257	168	46	28	0
4YR ACF	White	5,888	9,628	2,251	3,250	2,423	3,395	2,819	2,162	566	8
	Black	848	1,331	303	543	311	563	378	286	102	0
	Hispanic	154	237	75	124	86	160	112	77	22	0
	Other	261	477	123	202	165	195	150	74	23	0
	Total										
		23,270	90,444	95,562	84,793	81,579	56,646	36,979	23,686	11,763	6,125
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*Through fiscal year 1994.

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Montgomery GI Bill and Army College Fund Separatees by Marital Status

Table B-3

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	Single	6,349	34,075	41,640	44,891	45,508	26,946	15,872 6.206	9,982	7,532	4,535
	No longer married	261	1,679	1,919	1,542	1,262	725	546	302	214	148
2YR ACF	Single	2,420	8,217	8,397	3,949	4,647	6,705	5,840	4,583	289	52
	Married No longer married	454 26	2,133	2,087	646 30	574 23	1,021 66	939	767 51	93 9	∞
3YR ACF	Single Married	2,188 839 52	6,229 2,663	7,325 2,994	4,606 1,296 66	4,037 730 42	3,844 784 40	2,971 527 22	1,245 183 14	553 82 12	-00
4YR ACF	Single	4,271	6,754	1,762	2,983	2,301	3,193 1,035	2,692	2,099	572 129	
	No longer married Total	178	292 89,484	64 94,348	66 83,151	86,099	61 56,039	47 36,396	23,157	11,756	6,122

*Through fiscal year 1994.

Montgomery GI Bill and Army College Fund Separatees by Education

Table B-4

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	<high school<="" td=""><td>391</td><td>2,498</td><td>2,909</td><td>1,374</td><td>2,434</td><td>1,092</td><td>314</td><td>39</td><td>144</td><td>120</td></high>	391	2,498	2,909	1,374	2,434	1,092	314	39	144	120
	HS Diploma	9,271	53,699	65,351	65,903	63,811	37,125	21,657	13,479	9,371	5,479
	1yr College Cert	103	803	765	575	381	261	184	136	254	249
	BA/BS	296	1,730	1,954	1,809	1,554	1,177	829	490	287	193
	MA/MS	=	22	22	51	52	27	32	4	7	∞
2YB ACF	<hiah school<="" td=""><td>о</td><td>29</td><td>35</td><td>36</td><td>27</td><td>29</td><td>38</td><td>12</td><td>-</td><td>-</td></hiah>	о	29	35	36	27	29	38	12	-	-
1	HS Diploma	2,782	9,931	10,127	4,469	5,115	7,633	6,640	5,265	306	54
	1yr College Cert	35	229	193	46	41	46	69	28	14	5
	BA/BS	80	361	317	118	95	157	121	106	4	_
	MA/MS	Ψ-	80	က	က	0	0	4	Ø	0	0
C V	, do	7	ac	Y	Λ	8	9	17	4	•	c
בוס בוס			8 683	10.264	7 R29	4 766	4 572	3 447	1 433	624	· -
	1vr College Cert	42	174	125	330,0	24	32	2	12	13	. 0
	BA/BS		262	191	89	22	69	51	7	80	0
	MA/MS	7	2	9	4	2	-	_	_	0	0
4YB ACF	<hiah school<="" td=""><td>23</td><td>36</td><td>æ</td><td>33</td><td>13</td><td>21</td><td>34</td><td>17</td><td>က</td><td>0</td></hiah>	23	36	æ	33	13	21	34	17	က	0
	HS Diploma	6,911	11,040	2,657	3,966	2,930	4,166	3,328	2,526	702	8
	1yr College Cert	22	149	30	38	=	21	28	20	4	0
	BA/BS	140	314	50	73	38	98	61	35	4	0
	MA/MS	0	7	0	က	-	0	0	0	0	0
	Total	23,193	90,043	95,082	84,503	81,384	56,546	36,878	23,660	11,751	6,113
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*Through fiscal year 1994.

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Table B-5
Montgomery GI Bill and Army College Fund Separatees by AFQT Category

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94*
MGIB ALONE	CAT IV A	145	3,439	3,554	3,523	5,517	1,062	363	89	409	236
	CAT III B	5,237	27,886	27,444	24,159	23,590	17,126	8,919	4,798	3,999	2,251
	CAT III A	1,964	12,088	17,861	18,115	17,485	9,880	6,215	4,344	2,714	1,715
	CATII	2,396	13,898	19,971	20,784	18,481	9,928	6,586	4,381	2,649	1,691
	CATI	281	1,444	2,317	2,363	2,025	1,128	768	465	275	163
2YB ACF	CAT III A	1.014	3.781	3.775	1.631	1.826	3.234	2,836	2,312	147	35
	CATII	1,620	5,993	6,067	2,704	3,036	4,101	3,631	2,796	162	25
	CATI	178	767	828	392	390	491	392	333	13	_
	: 	7	0	0	0	0	3	7	0	Č	7
3YR ACF	CALIIIA	1,169	3,264	3,931	2,323	1,903	1,840	1,40/	/99	300	_
	CAT II	1,660	5,181	5,948	3,275	2,646	2,527	1,912	716	316	0
	CATI	156	649	774	399	317	319	210	78	31	0
4YR ACF	CAT III A	2,825	4,492	994	1,401	937	1,577	1,349	1,170	316	-
	CAT II	3,664	6,317	1,524	2,322	1,731	2,352	1,851	1,287	354	0
	CATI	401	296	204	336	285	353	244	139	41	-
	Total	22,710	89,995	95,192	83,727	80,169	55,918	36,683	23,575	11,726	6,120

*Through fiscal year 1994.

Appendix C: Participation Rates

Table C-1
MGIB and ACF Participation Rates of Enlistees
by Marital Status

		FY85	FY86	FY87					FY92	
MGIB ALONE	Single	30%	48%	63%	78%	79%	67%	62%	57%	63%
	Married	33%	49%	67%	85%	89%	79%	77%	74%	75%
	No longer	37%	50%	66%	86%	90%	80%	80%	79%	78%
	married									
								4=0/	470/	00/
2YR ACF	Single	11%	12%	12%	6%	7%	14%	15%	17%	3%
	Married	5%	5%	5%	2%	2%	6%	7%	9%	1%
	No longer	4%	5%	5%	1%	2%	7%	6%	7%	1%
	married									
3YR ACF	Single	10%	9%	11%	8%	6%	8%	8%	9%	5%
STRACI	Married	8%	6%	7%	4%	3%	5%	4%	5%	4%
		7%	6%	7%	3%	3%	4%	3%	4%	3%
	No longer married	/ /0	0 78	1 /0	0 70	0 70	170	0 70	170	0,0
	marriod									
4YR ACF	Single	20%	10%	3%	5%	4%	8%	14%	15%	5%
	Married	25%	10%	2%	4%	3%	7%	10%	10%	4%
	No longer	25%	9%	2%	4%	3%	6%	8%	9%	5%
	married									
TOTAL ACF	Single	42%	30%	26%	19%	18%	30%	37%	41%	13%
	Married	38%	20%	14%	10%	8%	18%	22%	24%	9%
	No longer	36%	20%	14%	8%	7%	17%	18%	20%	8%
	married	,								
	0:1-	700/	700/	000/	079/	070/	070/	99%	98%	76%
TOTAL	Single	72%	78%	88%	97%	97%	97%			84%
	Married	71%	69%	81%	95%	97%	98%	99%	98%	
	No longer	73%	70%	80%	94%	97%	98%	98%	99%	86%
	married									

Table C-2
MGIB and ACF Participation Rates of Enlistees
by AFQT Category

		EV05	EV86	EV87	FV88	FV89	FY90	FY91	FY92	FY93
MOID ALONE	OAT IV		61%	81%	96%	97%	97%	99%	99%	95%
MGIB ALONE	CATIV	52%			96%	96%	97%	99%	97%	93%
	CAT III B	52%	68%	85%					53%	56%
	CAT III A	21%	39%	58%	76%	79%	61%	58%		
	CAT II	21%	36%	52%	71%	73%	56%	55%	51%	53%
	CATI	23%	32%	49%	66%	68%	52%	57%	54%	55%
2YR ACF	CAT III A	11%	12%	11%	6%	7%	16%	16%	19%	4%
	CAT II	14%	15%	15%	8%	10%	17%	16%	19%	4%
	CATI	14%	17%	16%	9%	11%	18%	14%	17%	3%
3YR ACF	CAT III A	13%	10%	12%	9%	8%	10%	9%	10%	7%
	CAT II	14%	13%	15%	10%	9%	12%	10%	10%	7%
	CATI	13%	14%	16%	10%	9%	12%	8%	9%	7%
4YR ACF	CAT III A	31%	14%	3%	6%	4%	10%	15%	16%	6%
	CATII	32%	16%	4%	8%	6%	12%	18%	18%	7%
	CATI	33%	18%	4%	9%	9%	15%	19%	18%	8%
	2									
TOTAL ACF	CAT III A	55%	37%	27%	21%	18%	36%	41%	45%	16%
	CAT II	60%	45%	34%	26%	25%	41%	44%	47%	18%
	CATI	60%	49%	36%	28%	29%	45%	42%	44%	18%
	6 7									
TOTAL	CAT IV	52%	61%	81%	96%	97%	97%	99%	99%	95%
	CAT III B	52%	68%	85%	96%	96%	97%	99%	97%	93%
	CAT III A	76%	76%	84%	96%	97%	97%	99%		72%
	CAT II	81%	81%	86%	96%	97%	98%	99%		71%
	CATI	83%	81%	85%	94%	97%	97%	99%	99%	73%

Appendix D: Usage Rates of Separatees

Table D-1
MGIB and ACF Usage Rates of Separatees by
Marital Status

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	Single	51%	39%	36%	35%	31%	23%	15%	9%	4%
	Married	40%	33%	31%	30%	27%	20%	12%	9%	3%
	No longer married	39%	34%	35%	34%	31%	21%	15%	13%	6%
2YR ACF	Single	79%	72%	73%	75%	75%	62%	51%	29%	7%
	Married	55%	52%	48%	53%	59%	45%	34%	20%	3%
	No longer married	58%	54%	50%	60%	65%	41%	36%	25%	0%
3YR ACF	Single	75%	66%	64%	66%	67%	58%	43%	12%	6%
01117.01	Married	56%	52%	47%	53%	54%	48%	34%	15%	5%
	No longer married	58%	53%	45%	53%	52%	53%	41%	7%	0%
4YR ACF	Single	59%	53%	59%	63%	62%	37%	18%	8%	5%
	Married	49%	43%	55%	57%	58%	36%	22%	11%	4%
	No longer married	56%	49%	53%	64%	61%	26%	21%	10%	0%
TOTAL ACF	Single	69%	64%	68%	68%	69%	55%	41%	21%	6%
	Married	51%	48%	49%	54%	57%	43%	30%	17%	4%
	No longer married	56%	52%	48%	59%	58%	38%	32%	18%	0%
TOTAL	Single	61%	48%	46%	42%	39%	34%	26%	14%	4%
	Married	46%	37%	34%	33%	29%	24%	17%	11%	4%
	No longer married	48%	39%	38%	37%	33%	24%	18%	14%	5%

Table D-2
MGIB and ACF Usage Rates of Separatees by
AFQT Category

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	CAT IV	43%	31%	26%	24%	21%	17%	9%	6%	4%
	CAT III B	44%	34%	32%	30%	27%	20%	12%	7%	4%
	CAT III A	45%	34%	32%	31%	27%	20%	12%	8%	4%
	CAT II	53%	42%	39%	37%	34%	25%	16%	11%	3%
	CATI	50%	46%	47%	43%	39%	30%	19%	12%	3%
				222/	000/	000/	500/	400/	040/	F0/
2YR ACF	CAT III A	70%	61%	60%	66%	66%	52%	40%	21%	5%
	CAT II	79%	70%	71%	75%	77%	64%	53%	30%	6%
	CATI	84%	79%	76%	78%	81%	77%	63%	43%	23%
3YR ACF	CAT III A	63%	57%	52%	56%	61%	50%	35%	11%	6%
STRACE	CATII	73%	63%	62%	67%	67%	59%	45%	13%	6%
	CATI	78%	70%	70%	74%	75%	69%	58%	24%	6%
	OATT	7078	1070	1070	7-170	, 0, 70	00 70	0070	,,	• 70
4YR ACF	CAT III A	50%	44%	49%	54%	52%	29%	13%	6%	6%
	CAT II	58%	52%	62%	64%	64%	39%	22%	9%	4%
	CATI	66%	63%	63%	73%	73%	51%	26%	17%	7%
70741 405		-7 0/	E00/	55%	58%	61%	46%	32%	15%	6%
TOTAL ACF	CAT III A	57%	53%				56%	43%	22%	5%
	CATII	66%	62%	66%	69%	70%				
	CATI	73%	71%	72%	75%	77%	67%	51%	34%	9%
TOTAL	CAT IV	43%	31%	26%	24%	21%	17%	9%	6%	4%
· · · -	CAT III B	44%	34%	32%	30%	27%	20%	12%	7%	4%
	CAT III A	53%	44%	39%	37%	34%	30%	22%	12%	4%
	CAT II	63%	53%	50%	46%	45%	40%	30%	17%	4%
	CATI	67%	61%	58%	54%	52%	49%	36%	24%	4%

Appendix E: Usage Rates of Participants

Table E-1
MGIB and ACF Usage Rates of Participants
by Gender

-		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	Male	46%	35%	32%	28%	24%	16%	8%	3%	1%
	Female	50%	41%	37%	32%	25%	19%	10%	5%	2%
2YR ACF	Male	76%	68%	68%	71%	69%	54%	41%	15%	1%
	Female	66%	60%	60%	41%	49%	40%	30%	16%	3%
3YR ACF	Male	69%	62%	59%	60%	61%	48%	32%	4%	1%
	Female	65%	55%	52%	50%	48%	36%	28%	7%	4%
4YR ACF	Male	55%	49%	53%	55%	53%	27%	8%	2%	1%
	Female	56%	50%	54%	54%	41%	28%	13%	4%	2%
TOTAL ACF	Male	63%	59%	62%	62%	63%	45%	26%	8%	1%
	Female	62%	56%	55%	52%	46%	34%	21%	10%	3%
TOTAL	Male	56%	44%	39%	34%	30%	24%	14%	5%	1%
	Female	54%	46%	41%	35%	27%	23%	13%	6%	2%

Table E-2
MGIB and ACF Usage Rates of Participants by Race

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	White	47%	37%	33%	30%	25%	17%	8%	4%	1%
	Black	43%	33%	28%	26%	22%	15%	8%	4%	1%
	Hispanic	52%	38%	38%	34%	28%	20%	9%	3%	1%
	Other	51%	42%	38%	33%	25%	19%	9%	4%	1%
2YR ACF	White	75%	68%	69%	72%	71%	54%	42%	16%	2%
	Black	63%	58%	56%	54%	57%	44%	30%	10%	2%
	Hispanic	85%	68%	70%	71%	67%	48%	43%	13%	2%
	Other	81%	71%	69%	79%	70%	52%	40%	16%	0%
->/	NA (1) **	200/	000/	000/	040/	000/	400/	200/	40/	1%
3YR ACF	White	69%	63%	60%	61%	60%	48%	32%	4%	
	Black	63%	51%	46%	47%	52%	37%	22%	3%	2%
	Hispanic	75%	62%	57%	59%	61%	51%	34%	2%	0%
	Other	70%	63%	67%	65%	59%	46%	37%	4%	2%
4YR ACF	White	56%	50%	55%	58%	53%	28%	9%	3%	1%
4111701	Black	47%	43%	42%	44%	37%	21%	7%	3%	2%
	Hispanic	65%	51%	53%	49%	44%	29%	8%	2%	0%
!	Other	54%	55%	62%	49%	53%	25%	7%	3%	2%
	00.	0 1 70	00,0	0_,0						
TOTAL ACF	White	64%	60%	63%	63%	63%	45%	26%	8%	1%
	Black	54%	50%	50%	47%	50%	35%	20%	6%	2%
	Hispanic	71%	60%	62%	59%	59%	43%	29%	7%	1%
	Other	63%	62%	67%	65%	61%	43%	26%	9%	1%
TOTAL	White	57%	46%	42%	36%	31%	25%	15%	6%	1%
	Black	47%	36%	31%	28%	24%	18%	10%	4%	1%
	Hispanic	60%	43%	43%	37%	32%	26%	14%	4%	1%
	Other	57%	48%	45%	38%	31%	26%	14%	6%	1%

Table E-3
MGIB and ACF Usage Rates of Participants by
Marital Status

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	Single	51%	38%	35%	33%	28%	19%	9%	4%	1%
	Married	40%	33%	28%	23%	18%	13%	6%	3%	1%
	No longer married	39%	34%	32%	27%	22%	15%	9%	5%	2%
2YR ACF	Single	79%	72%	73%	74%	73%	58%	45%	16%	1%
	Married	52%	52%	48%	51%	44%	30%	22%	10%	2%
	No longer married	54%	54%	49%	58%	45%	30%	26%	16%	0%
3YR ACF	Single	74%	66%	63%	64%	64%	52%	35%	4%	1%
OTITAL	Married	55%	51%	46%	44%	39%	29%	20%	4%	1%
	No longer married	58%	53%	44%	45%	42%	37%	24%	2%	0%
4YR ACF	Single	59%	53%	58%	60%	56%	29%	8%	3%	1%
	Married	48%	42%	47%	43%	38%	22%	8%	3%	1%
	No longer married	55%	48%	,48%	50%	38%	18%	12%	3%	0%
TOTAL ACF	Single	68%	64%	67%	67%	66%	49%	29%	9%	1%
TOTALAGI	Married	50%	47%	47%	45%	40%	27%	15%	6%	1%
	No longer married	55%	51%	46%	49%	41%	27%	19%	8%	0%
TOTAL	Single	61%	48%	45%	40%	35%	28%	17%	6%	1%
	Married	45%	37%	31%	25%	20%	15%	8%	4%	1%
	No longer married	47%	39%	35%	29%	24%	17%	11%	5%	2%

Table E-4
MGIB and ACF Usage Rates of Participants
by Education

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	<high school<="" td=""><td>28%</td><td>19%</td><td>16%</td><td>15%</td><td>13%</td><td>14%</td><td>5%</td><td>3%</td><td>1%</td></high>	28%	19%	16%	15%	13%	14%	5%	3%	1%
	HS Diploma	47%	37%	33%	29%	25%	17%	8%	4%	1%
	1yr College Cert	54%	43%	40%	34%	29%	16%	9%	5%	1%
	BA/BS	50%	38%	37%	29%	22%	17%	8%	3%	1%
	MA_PHD	45%	45%	40%	30%	25%	9%	0%	1%	0%
2YR ACF	<high school<="" td=""><td>89%</td><td>66%</td><td>57%</td><td>53%</td><td>69%</td><td>42%</td><td>20%</td><td>12%</td><td>0%</td></high>	89%	66%	57%	53%	69%	42%	20%	12%	0%
	HS Diploma	74%	67%	67%	71%	69%	52%	40%	15%	1%
	1yr College Cert	81%	73%	70%	70%	73%	54%	42%	22%	5%
	BA/BS	80%	71%	72%	66%	64%	51%	41%	19%	7%
	MA_PHD	0%	50%	33%	33%	0%	0%	14%	0%	0%
3YR ACF	<high school<="" td=""><td>36%</td><td>64%</td><td>59%</td><td>28%</td><td>54%</td><td>27%</td><td>9%</td><td>0%</td><td>0%</td></high>	36%	64%	59%	28%	54%	27%	9%	0%	0%
	HS Diploma	69%	61%	58%	59%	59%	46%	31%	4%	1%
	1yr College Cert	63%	58%	57%	53%	47%	61%	41%	13%	2%
	BA/BS	71%	55%	53%	56%	61%	45%	46%	18%	2%
	MA_PHD	50%	40%	50%	25%	33%	0%	0%	0%	0%
4YR-ACF	<high school<="" td=""><td>43%</td><td>36%</td><td>38%</td><td>37%</td><td>33%</td><td>22%</td><td>0%</td><td>0%</td><td>0%</td></high>	43%	36%	38%	37%	33%	22%	0%	0%	0%
	HS Diploma	55%	49%	54%	55%	51%	27%	9%	3%	1%
	1yr College Cert	61%	53%	48%	39%	46%	34%	18%		0%
	BA/BS	66%		57%	53%		31%	6%		4%
	MA_PHD	0%	43%	0%	33%	100%	0%	0%	0%	0%
TOTAL ACF	<high school<="" td=""><td>50%</td><td>54%</td><td>56%</td><td>38%</td><td>56%</td><td>32%</td><td>8%</td><td>3%</td><td>0%</td></high>	50%	54%	56%	38%	56%	32%	8%	3%	0%
	HS Diploma	62%	58%	61%	62%	61%	43%	26%	8%	1%
	1yr College Cert	67%	63%	63%	54%	60%	51%	33%	14%	2%
	BA/BS	71%	60%	64%	59%	63%	43%	27%	14%	4%
	MA_PHD	33%	45%	44%	30%	50%	0%	9%	0%	0%
TOTAL	<high school<="" td=""><td>31%</td><td>20%</td><td>17%</td><td>17%</td><td>14%</td><td>15%</td><td>6%</td><td>3%</td><td>1%</td></high>	31%	20%	17%	17%	14%	15%	6%	3%	1%
	HS Diploma	56%	44%	40%			24%			
	1yr College Cert	61%	51%	47%						
	BA/BS	61%	46%	43%						
	MA_PHD	43%	45%	41%	30%	26%	9%	1%	1%	0%

Table E-5
MGIB and ACF Usage Rates of Participants by AFQT Category

		FY85	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93
MGIB ALONE	CAT IV	43%	31%	25%	20%	17%	13%	6%	2%	1%
	CAT III B	44%	34%	30%	26%	21%	15%	7%	3%	1%
	CAT III A	44%	34%	30%	28%	22%	15%	7%	3%	1%
	CAT II	53%	41%	37%	32%	27%	18%	9%	4%	1%
	CATI	49%	46%	45%	38%	32%	22%	10%	4%	1%
2YR ACF	CAT III A	69%	61%	60%	65%	61%	45%	33%	12%	1%
	CATII	78%	70%	71%	74%	72%	56%	45%	17%	1%
	CATI	83%	79%	75%	77%	78%	69%	55%	27%	4%
									40/	40/
3YR ACF	CAT III A	62%	57%	51%	52%	55%	40%	26%	4%	1%
	CAT II	72%	63%	61%	62%	61%	49%	34%	4%	1%
	CATI	77%	70%	69%	70%	68%	58%	47%	7%	1%
				100/	4770/	400/	040/	00/	00/	00/
4YR ACF	CAT III A	50%	43%	46%	47%	42%	21%	6%	2%	2%
	CAT II	58%	51%	57%	58%	54%	29%	9%	3%	1%
	CATI	66%	63%	61%	67%	62%	39%	12%	4%	2%
TOTAL ACF	CAT III A	57%	53%	54%	54%	55%	37%	21%	6%	2%
TOTAL ACF		66%	61%	65%	65%	63%	46%	28%	9%	1%
	CATI			71%	72%	70%	56%	34%		2%
	CATI	72%	70%	/ 170	1270	7070	JU /6	J4 /6	10 /0	2 /0
TOTAL	CAT IV	43%	31%	25%	20%	17%	13%	6%	2%	1%
101712	CAT III B	44%	34%	30%	26%	21%	15%	7%	3%	1%
	CAT III A	53%	43%	38%	33%	28%	23%	13%	5%	1%
	CAT II	62%	52%	48%	41%	37%	30%	17%	6%	1%
	CATI	66%	60%	56%	48%	43%	37%	20%	8%	1%